



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 225877

TO: Shailendra Kumar
Location: REM-5C03/5C18
Art Unit: 1621
Wednesday, May 30, 2007
Case Serial Number: 10/538484

From: Les Henderson
Location: Biotech-Chem Library
REM-1B61
Phone: (571)272-2538
leslie.henderson@uspto.gov

Search Notes

Your search results may also be accessed via eDAN.

In eDAN:

Enter Application number
Click on Supplemental Content Tab ->
Sequence results are under the Search Results (click on version listed)
All other results are under Other Content (click on version listed)

Results may also be viewed via SCORE as well. <http://es/ScoreAccessWeb/>

Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: S. Kumar Examiner #: 69594 Date: 5/24/07
 Art Unit: 1621 Phone Number: 2-0640 Serial Number: 10538484
 Location (Bldg/Room#): REINDE (Mailbox #): 5C18 Results Format Preferred (circle): PAPER DISK

5C03

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Aromatic Compounds

Inventors (please provide full names): Masayuki Takeuchi et al.

Earliest Priority Date: 12/12/02

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

2. (Currently Amended) The An aromatic compound according to claim 1, expressed by the following general formula (I):

A-(X-Y)_n (I)

wherein A represents a said fused polyaromatic hydrocarbon moiety is selected from among triphenylene, acenes, phenanthrene, perylene, fluorene, pyrene, coronene and hexabenzocoronene, said X represents a hydrogen-bonding site is selected from among atomic groups containing an amide linkage, an urea linkage, a thiourea linkage or an urethane linkage, Y represents a and said chain functional group having 3 to 18 carbon atoms, and is selected from among an alkyl group, a fluoroalkyl group and a polyethylene glycol group, and n represents an integer ranging from 2 to 10.

3. (Original) The aromatic compound according to claim 1, wherein said chain functional group has 10 to 18 carbon atoms.

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Searcher: <u>XH</u>	NA Sequence (#)	SIN	Patent
Searcher Phone #:	AA Sequence (#)	Questel/Orbit	Lexis/Nexis
Searcher Location:	Structure (#)	Westlaw	WWW/Internet
Date Searcher Picked Up:	Bibliographic	In-house sequence systems	
Date Completed: <u>5/29/07</u>	Litigation	Commercial	Scor/Length
Searcher Prep & Review Time:	Fulltext	Interference	SPDI
Online Time:	Other	Other (specify)	

INVENTOR SEARCH

=> d his 167

(FILE 'HCAPLUS' ENTERED AT 16:34:25 ON 29 MAY 2007)
 L67 32 S L65 AND L66
 SAV L47 KUM484HCP/A
 SAV L67 KUM484HCPIN/A

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L49 QUE ABB=ON PLU=ON TAKEUCHI M?/AU
 L50 QUE ABB=ON PLU=ON IKEDA M?/AU
 L51 QUE ABB=ON PLU=ON SHINKAI S?/AU
 L53 QUE ABB=ON PLU=ON (L49 OR L50 OR L51)
 L54 QUE ABB=ON PLU=ON (KYUSHU(W)TLO?)/PA,CS,SO,CO
 L56 27 SEA FILE=HCAPLUS ABB=ON PLU=ON L49 AND L50 AND L51
 L57 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND L54
 L58 QUE ABB=ON PLU=ON ELECTR?(2A) TRANSPORT? OR HOLE(2A) (MOBIL? OR TRANSPORT? OR TRANSFER?)
 L59 62 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND L58
 L60 88 SEA FILE=HCAPLUS ABB=ON PLU=ON L56 OR L57 OR L59
 L61 QUE ABB=ON PLU=ON PY<2002 OR PRY<2002 OR AY<2002 OR MY<2002 OR REVIEW/DT
 L65 55 SEA FILE=HCAPLUS ABB=ON PLU=ON L60 AND L61
 L66 QUE ABB=ON PLU=ON (CHARGE OR ELECTR?)(2A) (MOBIL? OR TRANSPORT? OR TRANSFER?)
 L67 32 SEA FILE=HCAPLUS ABB=ON PLU=ON L65 AND L66

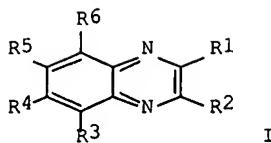
INVENTOR SEARCH RESULTS

=> d 167 1-32 ibib abs

L67 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:260075 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:294687
 TITLE: Organic electroluminescent device utilizing quinoxaline as electron transport material
 INVENTOR(S): Takeuchi, Masataka
 PATENT ASSIGNEE(S): Showa Denko K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2003100462	A	20030404	JP 2001-289773	2001 0921
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PRIORITY APPLN. INFO.:		JP 2001-289773		
2001 0921				
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AB The invention refers to an electroluminescent device comprising a quinoxaline derivative I [at least one of R1-6 is connected to a polymer chain, and the rest are H, halo, hydroxyl, nitro, carboxyl, carboxy ester, sulfonate, sulfonate ester, alkoxy, (un)substituted C1-20 alkyl, C2-20 alkenyl, alkynyl, (un)substituted aryl or heterocyclic] as an **electron transport** material.

L67 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:173670 HCAPLUS Full-text
 DOCUMENT NUMBER: 138:229001
 TITLE: Phosphor light-emitting compound, phosphor light-emitting composition, and organic light emitting element
 INVENTOR(S): Tokito, Shizuo; Suzuki, Mitsunori; Tanaka, Isao; Inoue, Youji; Shirane, Koro; Takeuchi, Masataka; Ito, Naoko
 PATENT ASSIGNEE(S): Nippon Hoso Kyokai, Japan; Showa Denko K.K.
 SOURCE: PCT Int. Appl., 71 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003018653	A1	20030306	WO 2002-JP8839	2002 0830
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2003342325	A	20031203	JP 2002-112352	2002 0415
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AU 2002330469	A1	20030310	AU 2002-330469	2002 0830
				<--
US 2003091862	A1	20030515	US 2002-231060	2002 0830
				<--
EP 1424350	A1	20040602	EP 2002-765394	2002

0830

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
 MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,
 EE, SK

CN 1547597 A 20041117 CN 2002-816692

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JP 2007059939 A 20070308 JP 2006-295017

2006
1030

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PRIORITY APPLN. INFO.: JP 2001-265033 A

2001
0831

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JP 2002-79129 A

2002
0320

JP 2002-112352 A

2002
0415

US 2002-392628P P

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0701

WO 2002-JP8839 W

2002
0830

AB The invention refers to a neutral organic polymer phosphor light-emitting compound used in an organic light emitting device, stable, with very high efficiency phosphorescence, comprising a phosphorescence light-emitting repeating unit for emitting phosphorescence and a carrier transport repeating unit.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L67 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:15802 HCAPLUS Full-text

DOCUMENT NUMBER: 138:80608

TITLE: Electrophotographic photoreceptor using
 isomeric electron-
 transporting agents and apparatus

INVENTOR(S): Takeuchi, Masaru

PATENT ASSIGNEE(S): Fuji Electric Imaging Device Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 118 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2003005396	A	20030108	JP 2001-186447	2001
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PRIORITY APPLN. INFO.:	JP 2001-186447	2001
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AB The photoreceptor comprises a conductive support coated with a photosensitive layer containing ≥2 kinds of **electron- transporting** agents having the same mol. weight and different chemical structure. The apparatus using the photoreceptor and pos. charging means is also claimed. The photoreceptor shows high sensitivity, low residual potential, and durability in repeated use.

L67 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:745167 HCAPLUS Full-text
 DOCUMENT NUMBER: 137:259640
 TITLE: Simple and rapid method for measuring
 microorganism
 INVENTOR(S): Nasu, Masao; Misaka, Takehiko; Fujiwara, Yumi;
 Ikeda, Masafumi
 PATENT ASSIGNEE(S): International Reagents Corporation, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002281998	A	20021002	JP 2001-88128	2001 0326
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PRIORITY APPLN. INFO.:		JP 2001-88128		
		2001 0326		
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AB A simple and rapid method is provided for detecting microorganism, its component and/or its activity (nucleic acid, respiratory activity, esterase activity, or else) without causing cell lysis. Microorganism or bacteria is conveniently and rapidly detected simultaneously with multiple test samples by combining a filter membrane for trapping bacteria, a device such as a microtiter plate, and an apparatus for optically reading a signal (e.g., fluorescence signal) by converting it to an elec. signal, without requiring the labor for a visual measurement, nor a fluorescence microscopy with which the problem of error among measurers is accompanied.

L67 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:864941 HCAPLUS Full-text
 DOCUMENT NUMBER: 136:12782
 TITLE: Electrophotographic photoreceptor with
 improved stability in repeated use and
 apparatus
 INVENTOR(S): Takeuchi, Masaru; Okura, Kenichi
 PATENT ASSIGNEE(S): Fuji Electric Imaging Device Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 60 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2001330972	A	20011130	JP 2000-151230	2000 0523
<--				
US 2002025484	A1	20020228	US 2001-861871	

2001
0521

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US 6749979 B2 20040615
DE 10124906 A1 20011206 DE 2001-101249062001
0522

CN 1325039 A 20011205 CN 2001-119777

2001
0523<--
PRIORITY APPLN. INFO.: JP 2000-151230 A2000
0523

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OTHER SOURCE(S): MARPAT 136:12782

AB In the electrophotog. photoreceptor comprising a support coated with an optional undercoat layer and a mono-layer photosensitive layer containing a charge-generating agent and a **charge- transporting** agent, the charge-generating agent is titanyl phthalocyanine satisfying $R = (P - B)/B \leq 7.0$ (P = diffraction ray intensity value at maximum peak at Bragg angle $2\theta = 5-35^\circ$ of powder x-ray diffraction spectrum using CuKa ray; B = background diffraction ray intensity value). The apparatus involves the photoreceptor and a pos. charging process.

L67 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:617252 HCAPLUS Full-text

DOCUMENT NUMBER: 135:187687

TITLE: Monolayer electrophotographic photoreceptor containing polycarbonate binder and positive **hole-transporting** agent and **electrophotographic** apparatusINVENTOR(S): Okura, Kenichi; Kitagawa, Kiyozo;
Takeuchi, Masaru

PATENT ASSIGNEE(S): Fuji Electric Imaging Device Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 69 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2001228637	A	20010824	JP 2000-36677	2000 0215

PRIORITY APPLN. INFO.: JP 2000-36677

2000
0215

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OTHER SOURCE(S): MARPAT 135:187687

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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT

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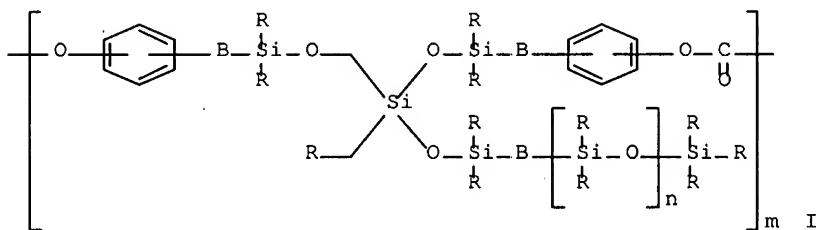
AB The photoreceptor comprises a photosensitive monolayer containing at least a polycarbonate binder with a main repeating unit I [R₁-B₈ = H, C₁₋₆ alkyl, (substituted) aryl, cycloalkyl, halo; Z = atoms required to form a carbon ring which

may be substituted with C1-6 alkyl or halo), a charge generating substance, ≥ 1 pos. hole transport substance II (RH1-H32 = H, C1-6 alkyl, C1-6 alkoxy), and an electron transport substance on an elec. conducting support optionally coated with an undercoat layer. The apparatus is characterized by involving the obtained photoreceptor and a pos. charging process. The photoreceptor shows high durability, preventing toner filming.

L67 ANSWER 7 OF 32 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:376881 HCPLUS Full-text
 DOCUMENT NUMBER: 134:359510
 TITLE: Electrophotographic photoconductor
 INVENTOR(S): Omokawa, Shinichi; Takeuchi, Masaru;
 Kitagawa, Seizo
 PATENT ASSIGNEE(S): Fuji Electric Imaging Device Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 19 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1102126	A1	20010523	EP 2000-125039	2000 1116
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001142235	A	20010525	JP 1999-326805	1999 1117
<--				
CN 1303030	A	20010711	CN 2000-137309	2000 1117
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US 6451493	B1	20020917	US 2000-714822	2000 1117
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PRIORITY APPLN. INFO.:			JP 1999-326805	A 1999 1117
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AB The present invention provides an electrophotog. photoconductor provided with a superior pos. charging organic photosensitive layer by a binder capable of reducing toner deposition amount to the surface of the photoconductor providing reduced toner

consumption amount and suppressed print defects such as dirty background, wherein the photosensitive layer is a single layer type containing at least a charge generation substance, a pos. **hole transport** substance, an **electron transport** substance and a binder, where the binder contains a polycarbonate resin containing polydialkylsiloxane having a repeating unit represented by I (each R is independently a C1-6 alkyl group or a C6-12 aromatic hydrocarbon group; B is -(CH₂)_x-, wherein x = 2-6; n = 0-200; m = 1-50), and the charge generation substance contains a phthalocyanine pigment.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L67 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:804035 HCAPLUS Full-text
 DOCUMENT NUMBER: 133:357221
 TITLE: Electrophotographic photoreceptors and electrophotographic apparatus
 INVENTOR(S): Okura, Kenichi; Kitagawa, Seizo; Takeuchi, Masaru
 PATENT ASSIGNEE(S): Fuji Denki Kazo Device K. K., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 74 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000314969	A	20001114	JP 1999-125133	1999 0430
GB 2351354	A	20001227	GB 2000-8619	2000 0408
GB 2351354	B	20030416	<--	
DE 10020692	A1	20001130	DE 2000-10020692	2000 0427
US 6485873	B1	20021126	US 2000-561598	2000 0427
PRIORITY APPLN. INFO.:			JP 1999-125133	A 1999 0430

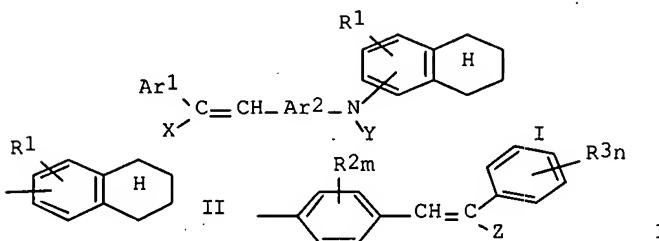
OTHER SOURCE(S): MARPAT 133:357221

AB The photoreceptors comprise a conductive substrate, an optional primer layer, and a monolayer photosensitive layer containing a resin binder, a charge generator, a **hole transporter**, an **electron transporter**, and a biphenyl derivative. Preferable Markush structures for the biphenyls, **electron transporters**, **hole transporters**, and binders are also given. Electrophotog. apparatus which work by pos. charge process and comprising of the claimed photoreceptors is also claimed. Apparatus giving clear images even after repeated printing is obtained.

L67 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:772287 HCAPLUS Full-text
 DOCUMENT NUMBER: 133:342455
 TITLE: Electrophotographic photoconductors and electrophotographic devices
 INVENTOR(S): Takeuchi, Masaru; Okura, Kenichi; Omokawa, Shinichi

PATENT ASSIGNEE(S): Fuji Electric Imaging Device Co. Ltd., Japan
 SOURCE: Ger. Offen., 62 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10020938	A1	20001102	DE 2000-10020938	2000 0428
JP 2000314970	A	20001114	JP 1999-125206	1999 0430
JP 3741346	B2	20060201		<--
US 6200717	B1	20010313	US 2000-558625	2000 0426
PRIORITY APPLN. INFO.: JP 1999-125206 A 1999 0430				
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OTHER SOURCE(S): MARPAT 133:342455				
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AB Electrophotog. photoconductors which comprise a single-layer photosensitive film comprising a resin binder with charge-producing and hole-and electron- transporting materials which is laminated directly or over an intermediate layer on an elec. conductive substrate are described in which the hole-transporting material is described by the general formula I (Ar1 = an optionally substituted aryl group; Ar2 = an optionally substituted phlenylene, naphthalene, biphenylene, or anthrylene group; R1 = H or a low mol. weight alkyl or alkoxy group; X = H or an optionally substituted alkyl or aryl group; Y = an optionally substituted aryl group, II, or III; R2 = H or a low mol. weight alkyl or alkoxy group; R3 = , a halogen H or a low mol. weight alkyl or alkoxy group; Z = H or an optionally substituted aryl group; m = 0-4; and n = 0-4). Preferably, the electron-transporting material is a diphenoquinone derivative. Electrophotog. devices using the photoconductors are also described.

L67 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2000:771974 HCAPLUS Full-text
 DOCUMENT NUMBER: 134:39637
 TITLE: Direct comparison of electron transfer properties of two distinct

AUTHOR(S): semisynthetic triads with non-protein based triad: unambiguous experimental evidences on protein matrix effects
 Hu, Yi-Zhen; Takashima, Hiroshi; Tsukiji, Shinya; Shinkai, Seiji; Nagamune, Teruyuki; Oishi, Shigero; Hamachi, Itaru
 CORPORATE SOURCE: Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, Fukuoka, 812-8581, Japan
 SOURCE: Chemistry--A European Journal (2000), 6(11), 1907-1916
 CODEN: CEUJED; ISSN: 0947-6539
 PUBLISHER: Wiley-VCH Verlag GmbH
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB To understand the roles of protein matrix in electron transfer processes (ET) within biol. systems, a heme-based donor (Zn-heme: ZnPP)-sensitizer (Ru²⁺(bpy)₃)-acceptor (cyclic viologen: BXV4⁺) triad 1 was used as a probe mol. Two semisynthetic systems, Cyt-b562(1) and Mb(1), in which the triad is incorporated into cytochrome b562 (Cyt-b562) or into myoglobin (Mb), were constructed by cofactor reconstitution. These two semisynthetic proteins were compared with the triad itself (i.e., without the protein matrix) using absorption spectroscopy, steady state emission and excitation studies, laser flash photolysis expts., and mol. modeling. Photoexcitation of the ZnPP moiety of Cyt-b562(1) or Mb(1) leads to a direct ET from the triplet state of ZnPP state (3ZnPP) to BXV4⁺ to generate a final charge-separated (CS) state, Cyt-b562(Zn⁺)-Ru²⁺-BXV3⁺ or Mb(Zn⁺)-Ru²⁺-BXV3⁺⁺. On the other hand, direct ET from the excited ZnPP moiety to the BXV4⁺ moiety is also involved in 1 in the absence of the protein matrix, but the excited state of ZnPP involved is not 3ZnPP, but the singlet excited state (1ZnPP) in this pathway. When the Ru²⁺(bpy)₃ moiety of Cyt-b562(1) or Mb(1) is excited, a stepwise ET relay occurs with the ion-pair, Cyt-b562(Zn)-Ru3⁺⁻-BXV3⁺⁺ or Mb(Zn)-Ru3⁺⁻-BXV3⁺⁺, as an intermediate, leading to the same final CS state as that generated in the direct ET pathway. The lifetimes of the corresponding final CS states were determined to be 300 ns for 1 in the absence of the protein matrix, 600-900 ns for Cyt-b562(1) and 1.1-18 μ s for Mb(1), the values of which are greatly affected by the protein matrix. Mol. modeling study of the three systems consistently explained the differences of their photophys. behavior.

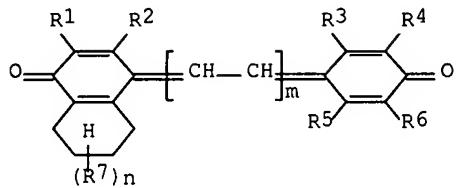
REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L67 ANSWER 11 OF 32 HCPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:612050 HCPLUS Full-text
DOCUMENT NUMBER: 133:215430
TITLE: Quinone derivatives and electrophotographic
photoreceptor and electrophotographic
apparatus using it
INVENTOR(S): Takeuchi, Masaru; Okura, Kenichi
PATENT ASSIGNEE(S): Fuji Electric Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2000239215	A	20000905	JP 1999-40116	1999 0218
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RITY APPLN. INFO.:		JP 1999-40116		1999 0218
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OTHER SOURCE(S) :
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MARPAT 133:215430



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AB Claimed quinone derivs. have a general formula I [R1-6 = H, halo, halogenated alkyl, C1-6 alkyl, cyclic alkyl, aryl, heterocyclic group, aralkyl, C1-6 alkoxy, where 2 of substituents may connect and form cyclic alkylene or aromatic ring and C1-6 alkyl, cyclic alkyl, aryl, heterocyclic group, aralkyl, C1-6 alkoxy, cyclic alkylene, and aromatic ring may have substituent of halo, halogenated alkyl, C1-6 alkyl, C1-6 alkoxy, NO₂, and/or cyano; R7 = lower alkyl; m = 0, 1]. The electrophotog. photoreceptor containing the quinone derivs. in photosensitive layer or undercoat layer and the electrophotog. apparatus having the photoreceptor are also claimed. The quinone derivs. have high **electron- transporting** ability and compatibility with binders, and the photoreceptor has high durability even under repeated use.

L67 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:585601 HCAPLUS Full-text

DOCUMENT NUMBER: 133:185501

TITLE: Electrophotographic photoreceptor with intermediate layer and manufacturing process thereof

INVENTOR(S): Takeuchi, Masaru; Kawakami, Haruo; Okura, Kenichi; Kasahara, Masahiko

PATENT ASSIGNEE(S): Fuji Electric Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2000231213	A	20000822	JP 1999-33823	1999 0212
				<--
JP 3791227	B2	20060628	JP 1999-33823	1999 0212
				<--

PRIORITY APPLN. INFO.:

AB The title photoreceptor comprises a conductive support laminated with a monolayer-type photosensitive layer containing a charge-generating agent, a pos. **hole- transporting** agent, an **electron- transporting** agent, and a binder resin through an intermediate layer containing a copolymer comprising vinyl chloride, ≤ 10 weight% vinyl acetate, and other monomer as resin components. The title process comprises the steps of forming the intermediate layer on a conductive support using a coating solution obtained by dissolving the copolymer in an ether-type or ketone-type solvent and then forming the photosensitive layer using a coating solution obtained by dissolving the above 3 agents and a binder resin in a halogenated hydrocarbon-type organic solvent. The

photosensitive layer shows high adhesion to the support, and hence the pos. charging monolayer-type photoreceptor exhibits improved durability in repeated use.

L67 ANSWER 13 OF 32 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:776752 HCPLUS Full-text
 DOCUMENT NUMBER: 131:358858
 TITLE: Characterization of photo leakage current of amorphous silicon thin-film transistors
 AUTHOR(S): Yamaji, Yoshimi; Ikeda, Mitsushi;
 Akiyama, Masahiko; Endo, Takahiko
 CORPORATE SOURCE: Display Materials and Devices Laboratories, Research and Development Center, Toshiba Corporation, Yokohama, 235-0017, Japan
 SOURCE: Japanese Journal of Applied Physics, Part 1: Regular Papers, Short Notes & Review Papers (1999), 38(11), 6202-6206
 CODEN: JAPNDE; ISSN: 0021-4922
 PUBLISHER: Japanese Journal of Applied Physics
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The photo-leakage current of amorphous silicon thin-film transistors (a-Si TFTs) for switching elements in active-matrix liquid crystal displays (AMLCDs) is studied to achieve high-image-quality LCDs. The position dependence of photo-leakage current generation in the a-Si:H TFT is evaluated using a slit light from the channel side. The generated photo-leakage current is composed of a peak at the junction region and a gradual part at channel region, both of which are larger at the source electrode side than at the drain electrode side. This large photo-leakage current at the source electrode side can be explained by the diffusion and tunnel current increase caused by the variation of the quasi-Fermi level by photogenerated carriers in the reverse bias source junction and the larger electron mobility than the hole, resp. The results of this study indicate the importance of the source junction for the TFT off-current, in contrast to studies in the past which put forth that the off-current is limited by the generation-recombination current at the drain junction. Our results indicate the importance of front-side illumination by the reflected-light illumination from the high brightness backlight of AMLCDs.

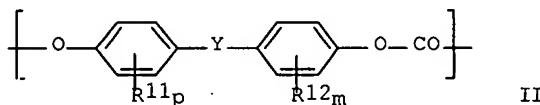
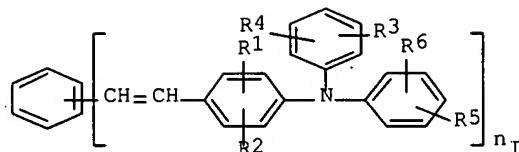
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L67 ANSWER 14 OF 32 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:42737 HCPLUS Full-text
 DOCUMENT NUMBER: 130:102861
 TITLE: Electrophotographic photoconductor and electrophotographic apparatus using the same
 INVENTOR(S): Ohkura, Kenichi; Takeuchi, Masaru
 PATENT ASSIGNEE(S): Fuji Electric Co., Ltd., Japan
 SOURCE: Ger. Offen., 18 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19829055	A1	19990107	DE 1998-19829055	1998 0629 -->
JP 11072934	A	19990316	JP 1998-182569	1998 0629 -->
JP 3733749	B2	20060111	JP 1997-173459	A

PRIORITY APPLN. INFO.:

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OTHER SOURCE(S): MARPAT 130:102861
GI

II

AB The electrophotog. photoconductor comprises a conductive support, and on the substrate a photoconductor film comprised of a charge generation layer and a **charge transport** layer, wherein the **charge transport** layer contains a **charge transport** material I (R1-6 = C1-4-alkyl; n = 2-4) and at least 1 binder material II (Y = single bond, O, CO, S, SO₂, CR21R22, C5-7 1,1-cycloalkylidene; R11, R12 = H, C1-6 alkyl, C6-12 aryl; m, p = 0-4; R21, R22 = H, C1-6 alkyl, C6-12 aryl). The conductor improves image quality and shows improved durability.

L67 ANSWER 15 OF 32 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:561226 HCPLUS Full-text

DOCUMENT NUMBER: 129:252448

TITLE: Electrophotographic photoreceptor containing orange-colored dye in **charge transporting** layer

INVENTOR(S): Takeuchi, Masaru; Ookura, Kenichi

PATENT ASSIGNEE(S): Fuji Electric Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

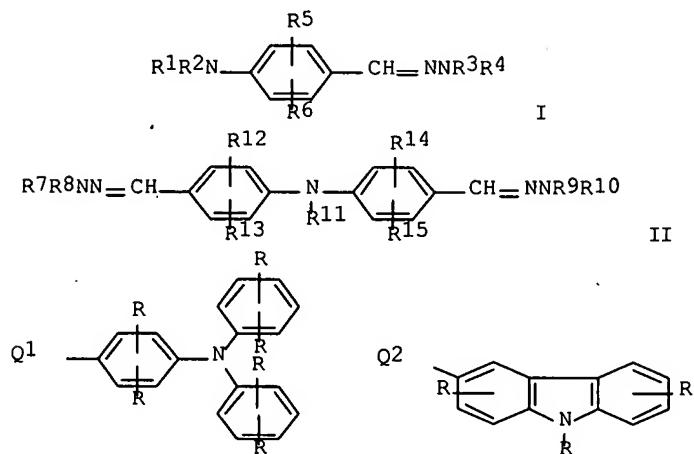
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 10228121	A	19980825	JP 1997-30076	1997 0214
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US 5952139	A	19990914	US 1998-24898	1998 0217
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PRIORITY APPLN. INFO.:			JP 1997-30076	A
				1997 0214

AB In the electrophotog. photoreceptor consisting of an electroconductive substrate, a **charge transporting** layer, and a charge generating layer, the **charge transporting** layer contains an orange-colored dye. The photoreceptor shows the high sensitivity and the low residual voltage, and little deterioration by light over the time.

L67 ANSWER 16 OF 32 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1998:8802 HCPLUS Full-text
 DOCUMENT NUMBER: 128:134356
 TITLE: Electrophotographic photoreceptor using
 two-types of charge-
 transporting agents
 INVENTOR(S): Takeuchi, Masaru; Okura, Kenichi
 PATENT ASSIGNEE(S): Fuji Electric Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09329904	A	19971222	JP 1996-149625	1996 0612
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PRIORITY APPLN. INFO.:		JP 1996-149625 1996 0612		
<--				

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AB The title photoreceptor comprises a conductive substrate coated with a photosensitive layer containing, as **charge- transporting agents**, a hydrazone compound I or II and a styryl compound R16CH:CHArCH:CHR17 [R1-4 = alkyl, (R-substituted) aromatic hydrocarbon, aromatic heterocyclic ring, benzyl; R5, R6, R12-15 = H, alkyl, alkoxy; R7-11 = alkyl, (R-substituted) aromatic hydrocarbon, aromatic heterocyclic ring, benzyl, thenyl; R16, R17 = alkyl, (R-substituted) aromatic hydrocarbon, aromatic heterocyclic ring, Q1, Q2; Ar = (R- substituted) aromatic hydrocarbon, aromatic heterocyclic ring; R = alkyl, alkoxy, amino, CN, NO₂, OH, halo]. The photoreceptor shows high photosensitivity, low residual potential, and good lightfastness.

L67 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997:658795 HCAPLUS Full-text
 DOCUMENT NUMBER: 127:324021
 TITLE: Influence of anthracene doping on electrical
 and light-emitting behavior of
 8-hydroxyquinoline-aluminum based
 electroluminescent devices
 AUTHOR(S): Kinoshita, Osamu; Yamaguchi, Ryuichi; Masui,
 Masayoshi; Takeuchi, Manabu
 CORPORATE SOURCE: Dep. Electrical Electronic Eng., Ibaraki
 Univ., Hitachi, 316, Japan
 SOURCE: Han'guk Pyomyon Konghak Hoechi (1996
), 29(5), 449-453
 CODEN: HPKHEL; ISSN: 1225-8024
 PUBLISHER: Korean Institute of Surface Engineering
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB To improve electroluminescence (EL) performance, anthracene was doped into the 8-hydroxyquinoline-aluminum (Alq3) light-emitting layer of organic double layered EL cells. The EL cells were fabricated on ITO glass substrates by vacuum deposition. Doping of anthracene in the light-emitting Alq3 layer was performed by coevapn. The doping concentration was changed from 5-30%. Anthracene doping of appropriate concentration increased the available c.d. and brightness of the EL cells. The green electroluminescence moved to slightly shorter wavelength. Carrier mobility of the Alq3 layer was measured by time of flight method, and was increased by anthracene doping. The influence of anthracene doping on the cell performance is discussed.
 REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE FORMAT

L67 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997:201029 HCAPLUS Full-text
 DOCUMENT NUMBER: 126:324078
 TITLE: Influence of crystal structure on carrier
 transport in titanylphthalocyanine thin films
 AUTHOR(S): Narushima, Kazuo; Kontani, Tomonori; Egerton,
 Raymond F.; Urao, Ryoichi; Takeuchi,
 Manabu
 CORPORATE SOURCE: Department of Electrical and Electronic
 Engineering, Ibaraki University, 4-12-1
 Nakanarusawa, Hitachi, 316, Japan
 SOURCE: Applied Surface Science (1997),
 113/114, 326-330
 CODEN: ASUSEE; ISSN: 0169-4332
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Titanylphthalocyanine thin films were prepared by vacuum deposition at various substrate temps., and influence of crystallinity of the films on the carrier mobility was studied. The film crystallinity was evaluated by x-ray diffraction, TEM, SEM and STM observations. The carrier mobility perpendicular to the film plane was determined by the time-of-flight method. Polycryst. and amorphous films were obtained at the substrate temps. of above 20 and below 0°, resp. Crystallinity of the thin films increased with increasing substrate temperature. Carrier mobility of the thin films increased with increasing substrate temperature, which is explained by an increase in crystallinity.

L67 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:956775 HCAPLUS Full-text
 DOCUMENT NUMBER: 124:42215
 TITLE: New transparent conductive oxides with YbFe2O4
 structure
 AUTHOR(S): Orita, Masahiro; Takeuchi, Megumi;
 Sakai, Hiroyuki; Tanji, Hiroaki
 CORPORATE SOURCE: R&D Center, HOYA Corp., Tokyo, 196, Japan
 SOURCE: Japanese Journal of Applied Physics, Part 2:

Letters (1995), 34(11B), L1550-L1552
 CODEN: JAPLD8; ISSN: 0021-4922

PUBLISHER: Japanese Journal of Applied Physics
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB InGaMgO₄ and InGaZnO₄ crystals with the YbFe₂O₄ layered structure are transparent conductive oxides. The band gaps of these crystals were wider than that of In₂O₃. Conductivity was induced by doping with electrons through introduction of O vacancies. Mobility, carrier d. and conductivity of sintered bodies of InGaMgO₄ were 2 cm²/V·s, 1 + 10¹⁸/cm³ and 0.5 S/cm, resp. Those of InGaZnO₄ were 20 cm²/V·s, 4 + 10¹⁹/cm³ and 120 S/cm. A promising method to improve the conductivity to a value sufficient for practical use is discussed.

L67 ANSWER 20 OF 32 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1994:445983 HCPLUS Full-text
 DOCUMENT NUMBER: 121:45983
 TITLE: Organic thin film electroluminescent devices
 AUTHOR(S): Minsik, Bae; Sato, Masaki; Wada, Tatsuaki;
 Takeuchi, Manabu
 CORPORATE SOURCE: Dep. Electr. Electron. Eng., Ibaraki Univ.,
 Hitachi, 316, Japan
 SOURCE: Int. Conf. Process. Mater. Prop., 1st (1993), 1109-12. Editor(s): Henein, Hani; Oki, Takeo. Miner. Met. Mater. Soc: Warrendale, Pa.
 CODEN: 59TDAS
 DOCUMENT TYPE: Conference
 LANGUAGE: English

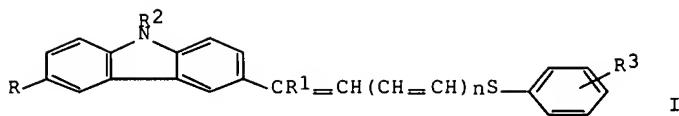
AB Organic electroluminescent (EL) cells consisting of a light-emitting layer and a **hole transport** layer were prepared by vacuum evaporation, and their elec. and light-emitting behavior was examined. 8-Hydroxyquinoline aluminum (Alq₃) and triphenylamine derivative (TPD) were used as the light-emitting and the **hole transport** layers, resp. Effects of doping of several organic materials into the light-emitting layer were studied. It was confirmed that anthracene doping increased the available c.d. of the EL cells and EL efficiency, which caused an increase in EL brightness. While 1,10-phenanthroline and 9-methylanthracene doping increased the available c.d. but decreased EL efficiency. Doping of benzanthrone, benz-a-anthracene and naphthacene decreased both the available c.d. and EL efficiency.

L67 ANSWER 21 OF 32 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1992:72241 HCPLUS Full-text
 DOCUMENT NUMBER: 116:72241
 TITLE: Electrophotographic photoreceptor containing thioether charge-transporting agent
 INVENTOR(S): Ono, Hitoshi; Takeuchi, Masako
 PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03116152	A	19910517	JP 1989-254528	1989 0929
<--				
JP 1989-254528				
1989 0929				
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AB E1005. The photoreceptor consists of an elec. conductive support coated with photosensitive layer containing a thioether [I; R = H, halo; R1, R2 = H, lower alkyl, aralkyl, (substituted) Ph; R3 = H, lower alkyl, halo, NO₂; n = 0, 1]. A photoreceptor containing a diazo pigment charge-generating agent and charge- transporting agent I (R = R1 = R3 = H; R2 = Et, n = 0) showed high sensitivity.

L67 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:666818 HCAPLUS Full-text

DOCUMENT NUMBER: 115:266818

TITLE: Electrophotographic photoreceptors using bishydrazone charge- transporting agent

INVENTOR(S): Ono, Hitoshi; Takeuchi, Masako

PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

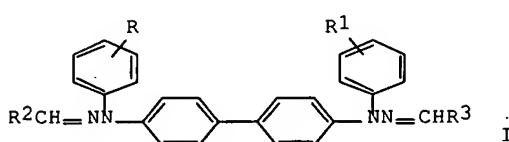
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03119361	A	19910521	JP 1989-258167	1989 1003
JP 2830178	B2	19981202	JP 1989-258167	1989 1003
PRIORITY APPLN. INFO.:				<--

GI



AB The photoreceptors comprise an elec. conductive support with a coating of a photosensitive layer containing a bishydrazone derivative I [R, R1 = H, lower alkyl, alkoxy; R2, R3 = (substituted) aryl, (substituted) heterocyclic residue]. The photoreceptors show increased photosensitivity and improved durability in repeated use.

Thus, an Al-deposited polyester film support was coated with a charge-generating layer containing a disazo pigment and overcoated with a **charge-transporting** layer containing I (R, R₁ = H; R₂, R₃ = p-C₆H₄OCH₂C₆H₄) to give a photoreceptor.

L67 ANSWER 23 OF 32 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1991:461856 HCPLUS Full-text
 DOCUMENT NUMBER: 115:61856
 TITLE: Formation of ion pairs and carrier transport
 in undoped and dye-doped poly(N-vinylcarbazole) films
 AUTHOR(S): Ikeda, Mitsusuke
 CORPORATE SOURCE: Cent. Res. Lab., Matsushita Electr. Ind. Co.,
 Ltd., Moriguchi, 570, Japan
 SOURCE: Journal of the Physical Society of Japan (1991), 60(6), 2031-9
 CODEN: JUPSAU; ISSN: 0031-9015
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Dark conductivities σ_d of undoped and dye-doped poly(N-vinylcarbazole) (PVK) films were measured at 298, 276, and 208 K over a wide range of static elec. field E = 104-106 V/cm. The field dependence of σ_d follows apparently the E^{0.6}-power law, rather than the E^{1/2}-power law of the well-known Poole-Frenkel (PF) type expression. Based on these exptl. results, the field-induced carrier generation processes are discussed in terms of "ion pairs" (bound hole-charged acceptors) that are formed by an **electron transfer** between carbazole-rings and acceptors. The Onsager "dissociation-association" model was used to account for the elec. field dependence of σ_d, in which the dissociation of the ion pairs is enhanced by an applied field.

L67 ANSWER 24 OF 32 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1991:33131 HCPLUS Full-text
 DOCUMENT NUMBER: 114:33131
 TITLE: Electrophotographic photoreceptors with
 charge-transporting layer
 using polygermane
 INVENTOR(S): Takeuchi, Masaru; Nagashima,
 Tomomichi; Yamaoki, Toshihiko; Minami, Koji
 PATENT ASSIGNEE(S): Sanyo Electric Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02165158	A	19900626	JP 1988-321061	1988 1220

PRIORITY APPLN. INFO.: JP 1988-321061
 <--
 1988
 1220

AB The photoreceptors comprise a charge-generating layer and a **charge-transporting** layer formed from polygermanes. The photoreceptors show good elec. properties without using binders in the **charge-transporting** layer. Thus, a conductive support with a charge-generating layer was coated with a toluene solution of a polygermane prepared by the polycondensation of triethylchlorogermane with hexamethylphosphoric triamide to give a photoreceptor.

ACCESSION NUMBER: 1990:581428 HCAPLUS Full-text
 DOCUMENT NUMBER: 113:181428
 TITLE: Photoconductive support for
 electrostatographic latent image
 INVENTOR(S): Nagashima, Tomomichi; Minami, Koji;
 Takeuchi, Masaru; Yamaoki, Toshihiko
 PATENT ASSIGNEE(S): Sanyo Electric Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02135363	A	19900524	JP 1988-290401	1988 1116
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PRIORITY APPLN. INFO.: JP 1988-290401 1988 1116				
<--				

AB The title support, on a substrate with an elec. conductive surface, has a charge-generating layer containing a polysilane and amorphous Si fine particle, which is covered with a charge -transporting layer. Thus, a dispersion containing poly[phenyl(propyl)dichlorosilane] and powdered amorphous Si was applied onto an elec. conductive surface of a substrate and coated with a solution of poly[methyl(phenyl)dicholorsilane] to give the title support showing high charge-generating property and charge-transporting property.

L67 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1990:94023 HCAPLUS Full-text
 DOCUMENT NUMBER: 112:94023
 TITLE: A chloride-translocating adenosine
 triphosphatase in *Acetabularia acetabulum*. 2.
 Reconstitution of the enzyme into liposomes
 and effect of net charges of liposomes on
 chloride permeability and reconstitution
 AUTHOR(S): Ikeda, Mikiko; Oesterhelt, Dieter
 CORPORATE SOURCE: Fac. Pharm. Sci., Okayama Univ., Okayama, 700,
 Japan
 SOURCE: Biochemistry (1990), 29(8), 2065-70
 CODEN: BICHAW; ISSN: 0006-2960
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The Mono Q-III fraction, a Mg²⁺-ATPase, isolated from *A. acetabulum* was reconstituted into liposomes of various net charges prepared by the reversed-phase method and tested for a Cl⁻-translocating activity. The liposomes from a mixture of egg lecithin, dicetyl phosphate, and cholesterol (63:18:9 mol ratio, neg. liposomes) and from a mixture of egg lecithin and cholesterol (63:9 mol ratio, neutral liposomes) were less leaky than pos. liposomes from asolectin, and from a mixture of egg lecithin, stearylamine, and cholesterol (63:18:9 mol ratio). A significant increase in 36Cl⁻ efflux from the neg. and neutral liposomes was observed by addition of ATP in the presence of valinomycin after incorporation of the enzyme by short-term dialysis. The ATP-driven 36Cl⁻ efflux was inhibited by addition of N3⁻, an inhibitor of the ATPase. The preincubation of the enzyme with phenylglyoxal, an arginine-modifying reagent, inactivated ATP-mediated 36Cl⁻ efflux, but the ATPase activity of the preparation was not affected. When Cl⁻ was replaced by 35SO42⁻, no ATP-dependent 35SO42⁻ efflux was detectable from the proteoliposomes. Proton-translocating activity of the enzyme was also tested, and no fluorescent quenching of 9-amino-6-chloro-2-methoxyacridine was observed

L67 ANSWER 27 OF 32 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1990:46493 HCPLUS Full-text
 DOCUMENT NUMBER: 112:46493
 TITLE: Selenium and zinc doping in gallium indium phosphide (Ga_{0.5}In_{0.5}P) and aluminum gallium indium phosphide ((Al_{0.5}Ga_{0.5})_{0.5}In_{0.5}P) grown by metalorganic chemical vapor deposition
 AUTHOR(S): Ikeda, M.; Kaneko, K.
 CORPORATE SOURCE: Res. Cent., Sony Corp., Yokohama, 240, Japan
 SOURCE: Journal of Applied Physics (1989), 66(11), 5285-9
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Elec. properties of Se- and Zn-doped Ga_{0.5}In_{0.5}P and (Al_{0.5}Ga_{0.5})_{0.5}In_{0.5}P grown by atmospheric-pressure metalorg. chemical vapor deposition under a wide range of growth conditions were investigated using van der Pauw-Hall measurements at room temperature. The dopants were hydrogen selenide and dimethylzinc. The samples were prepared so that parasitic conduction in the GaAs substrate just adjacent to the ternary or quaternary layers could be eliminated from the Hall measurement. The carrier concentration of <GaIn>P and <AlGaIn>P increased as the 0.8 ± 0.1 th power of the feed amount of dopants for both conductivity types. At at growth temperature of .apprx.680°, the hole concentration tended to saturate near the 10¹⁸ cm⁻³ level as the amount of dimethylzinc being fed increased. The carrier concentration decreased with increasing growth temperature, with apparent activation energies of 0.95 eV for Se doping with 1.9 eV for Zn doping. The Group-V to Group-III feed ratio had a weak influence on the carrier concentration. On the other hand, the Hall mobility of the layers grown under the various growth conditions remained almost constant: the electron mobilities of Se-Ga_{0.5}In_{0.5}P and Se-(Al_{0.5}Ga_{0.5})_{0.5}In_{0.5}P within the carrier concentration range of 10¹⁷ < n < 10¹⁸ cm⁻³ were 950-700 and .apprx.100 cm²/V-s, resp. The hole mobilities of Zn-Ga_{0.5}In_{0.5}P and Zn-(Al_{0.5}Ga_{0.5})_{0.5}In_{0.5}P within the carrier concentration range of 10¹⁷ < p < 10¹⁸ cm⁻³ were .apprx.34 and .apprx.16 cm²/V-s, resp.

L67 ANSWER 28 OF 32 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1989:109254 HCPLUS Full-text
 DOCUMENT NUMBER: 110:109254
 TITLE: Structure and organization of Marchantia polymorpha chloroplast genome. I. Cloning and gene identification
 AUTHOR(S): Ohyama, Kanji; Fukuzawa, Hideya; Kohchi, Takayuki; Sano, Toru; Sano, Satoshi; Shirai, Hiromasa; Umesono, Kazuhiko; Shiki, Yasuhiko; Takeuchi, Masayuki; et al.
 CORPORATE SOURCE: Fac. Agric., Kyoto Univ., Kyoto, 606, Japan
 SOURCE: Journal of Molecular Biology (1988), 203(2), 281-98
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The complete nucleotide sequence of chloroplast DNA from a liverwort, *M. polymorpha*, was determined using a clone bank of chloroplast DNA fragments. The circular genome consists of 121,024 base-pairs and includes two large inverted repeats (IRA and IRB, each 10,058 base-pairs), a large single-copy region (LSC, 81,095 base-pairs), and a small single-copy region (SSC, 19,813 base-pairs). The nucleotide sequence was analyzed with a computer to deduce the entire gene organization, assuming the universal genetic code and the presence of introns in the coding sequences. It detected 136 possible genes, 103 gene products of which are related to known stable RNA or protein mols. Stable RNA genes for four species of rRNA and 32 species of tRNA were located, although one of the tRNA genes may be defective. Twenty genes encoding polypeptides involved in photosynthesis and electron transport were identified by comparison with known chloroplast genes. Twenty-five open reading frames (ORFs) show structural similarities to *Escherichia coli* RNA polymerase subunits, 19 ribosomal proteins and two related proteins. Seven ORFs are comparable with human mitochondrial NADH dehydrogenase genes. A computer-aided homol. search predicted possible chloroplast homolog of bacterial proteins; two ORFs for bacterial 4Fe-4S-type ferredoxin, two for

distinct subunits of a protein-dependent transport system, one ORF for a component of nitrogenase, and one for an antenna protein of a light-harvesting complex. The other 33 ORFs, consisting of 29 to 2136 codons, remain to be identified, but some of them seem to be conserved in evolution. There may be 22 introns in 20 genes (8 tRNA genes and 12 ORFs), which may be classified into the groups I and II found in fungal mitochondrial genes. The structural gene for ribosomal protein S12 is trans-split on the opposite DNA strand. The universal genetic code was confirmed by the substitution pattern of simultaneous codons, and by possible codon recognition of the chloroplast-encoded tRNA mols., assuming no importation of tRNA mols. from the cytoplasm. The nucleotide residue A or T is preferred at the third position of the codons (G + C, 11.9%) and in intergenic spacers (G + C, 19.5%), resulting in an overall G + C content that is low (28.8%) throughout the liverwort chloroplast genome. Possible gene expression signals such as promoters and terminators for transcription, predicted locations of gene products, and DNA replicative origins are discussed.

L67 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1988:57355 HCAPLUS Full-text

DOCUMENT NUMBER: 108:57355

TITLE: Thermocontrol of electron

transport through ternary composite
membranes composed of polymer/liquid
crystal/electron carriers

AUTHOR(S): Shinkai, Seiji; Shimamoto,

Katsuhiro; Nakamura, Shinichiro; Namabe,
Osamu; Kajiyama, Tisato

CORPORATE SOURCE: Fac. Eng., Nagasaki Univ., Nagasaki, 852,
Japan

SOURCE: Journal of Polymer Science, Part C: Polymer
Letters (1987), 25(12), 495-501
CODEN: JSCLE2; ISSN: 0887-6258

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The title composite membranes were prepared using polycarbonate and Pelprene as the matrix polymer, vitamin K, and hydrophobic viologen (2C16C1V2+) as electron carriers (EC), and 4-cyano-4'-pentylbiphenyl (I) liquid crystal. Polymer/di-Bu phthalate/EC membranes which had no phase transition at the exptl. range were used as reference membranes. The rate of electron transport across the polymer/I/EC membranes changed distinctly at the crystal-liquid phase transition temperature of I, and that the rate of electron transport could be controlled by an on-off-type temperature switch.

L67 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1984:562011 HCAPLUS Full-text

DOCUMENT NUMBER: 101:162011

TITLE: Photoconductivity and mechanochemical effects
in semiconductor powders

AUTHOR(S): Takeuchi, Manabu

CORPORATE SOURCE: Fac. Eng., Ibaraki Univ., Hitachi, 316, Japan

SOURCE: Oyo Butsuri (1984), 53(9), 809-14

CODEN: OYBSA9; ISSN: 0369-8009

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB The photocond., elec. conductivity phase transition, color change, O adsorption and surface structure of semiconductor powders of CdS ZnTe, and TiO₂ during crushing and milling were studied.

L67 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1982:218560 HCAPLUS Full-text

DOCUMENT NUMBER: 96:218560

TITLE: Electrical conduction of organic polymers in
the molten state

AUTHOR(S): Takeuchi, Manabu; Kaneko, Fujio;

Nagasaki, Hideo; Kato, Itsuo

CORPORATE SOURCE: Fac. Eng., Ibaraki Univ., Hitachi, 316, Japan

SOURCE: Ibaraki Daigaku Kogakubu Kenkyu Shuho (

1981), 29, 111-14
CODEN: IDKSAB; ISSN: 0367-7389

DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Some organic polymers consist of crystalline and amorphous parts randomly distributed. Based on the fact that the whole structure becomes noncryst. at temps. above the m.p., an attempt was made to obtain information about the elec. conduction mechanism in the amorphous part by investigating the elec. properties of molten polymers. The elec. current depended not only on the temperature but also on the intensity as well as residence time of the applied field. These data, in combination with the dielec. permittivity data measured as a function of frequency, indicated that the elec. conduction at high temps. comes mainly from **electron transport**, while at low temps., ions and dipoles tend to contribute in an additive fashion.

L67 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1981:582302 HCAPLUS Full-text

DOCUMENT NUMBER: 95:182302

TITLE: Photo-controlled membrane transport

AUTHOR(S): Shinkai, Seiji

CORPORATE SOURCE: Coll. Eng., Nagasaki Univ., Nagasaki, Japan

SOURCE: Gendai Kagaku (1981), 126, 22-30

CODEN: GNKGAN; ISSN: 0386-961X

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Japanese

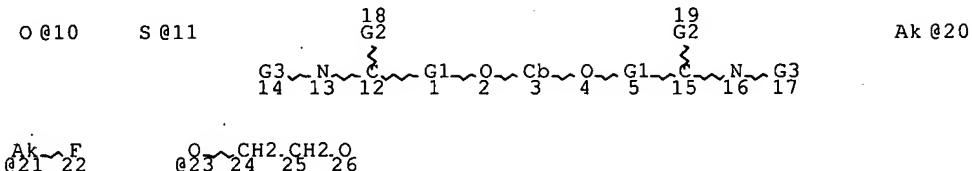
AB A review with no refs. on involvement of light energy in regulation of membrane ion transport.

STRUCTURE SEARCH

=> d his 147

(FILE 'HCAPLUS' ENTERED AT 16:19:46 ON 29 MAY 2007)
L47 6 S L43

=> d que stat 147
L4 STR



VAR G1=C/N/O

VAR G2=10/11

VAR G3=20/21/23

NODE ATTRIBUTES:

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CONNECT IS E1 RC AT 10
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DEFAULT MLEVEL IS ATOM
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DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M10 C AT 3
ECOUNT IS M3-X18 C AT 20
ECOUNT IS M3-X18 C AT 21
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GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

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L27	QUE	ABB=ON	PLU=ON	2508.17/RID
L29	QUE	ABB=ON	PLU=ON	2404.11/RID
L31	QUE	ABB=ON	PLU=ON	6828.2/RID
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L37	QUE	ABB=ON	PLU=ON	9418.2/RID
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L40	QUE	ABB=ON	PLU=ON	14022.1/RID
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L43	17	SEA FILE=REGISTRY	SUB=L41	SSS FUL L4
L47	6	SEA FILE=HCAPLUS	ABB=ON	PLU=ON L43

STRUCTURE SEARCH RESULTS

=> d 147 1-6 ibib abs hitstr hitind

L47 ANSWER 1 OF 6 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2007:3153 HCPLUS Full-text
 DOCUMENT NUMBER: 146:287106
 TITLE: Sensitive fluorescent sensors for malate based
 on calix[4]arene bearing anthracene
 AUTHOR(S): Qing, Guang-Yan; He, Yong-Bing; Chen,
 Zhi-Hong; Wu, Xiao-Jun; Meng, Ling-Zhi
 CORPORATE SOURCE: Department of Chemistry, Wuhan University,
 Wuhan, 430072, Peop. Rep. China
 SOURCE: Tetrahedron: Asymmetry (2006), 17(22),
 3144-3151
 CODEN: TASYE3; ISSN: 0957-4166
 PUBLISHER: Elsevier Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 146:287106
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT

*

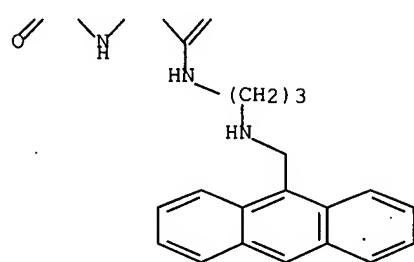
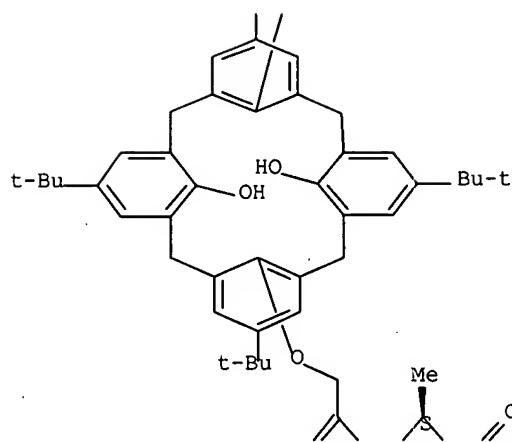
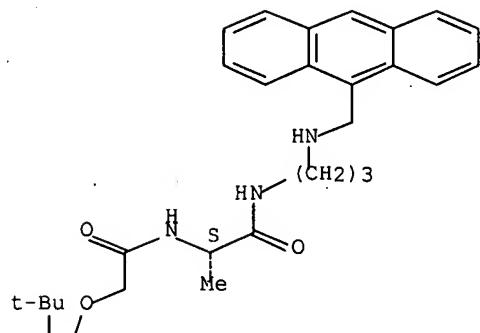
AB Two chiral fluorescence receptors I (R = Me, PhCH₂) based on calix[4]arenes were synthesized, and their chiral recognition properties for enantiomeric malate were studied by fluorescence and ¹H NMR spectra in CHCl₃. The addition of either L- or D-malate caused obvious fluorescence quenching of the host solution. Different fluorescent responses demonstrate that the two receptors have good enantioselective recognition abilities towards malate.

IT 927422-15-9P 927422-16-0P
 RL: ARU (Analytical role, unclassified); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (sensitive fluorescent sensors for malate enantiomer based on calix[4]arene bearing anthracene)

RN 927422-15-9 HCPLUS

CN Propanamide, 2,2'--[5,11,17,23-tetrakis(1,1-dimethylethyl)-26,28-dihydroxypentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-25,27-diyl]bis[oxy(1-oxo-2,1-ethanediyl)imino]bis[N-{3-[(9-anthracenylmethyl)amino]propyl}-, (2S,2'S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

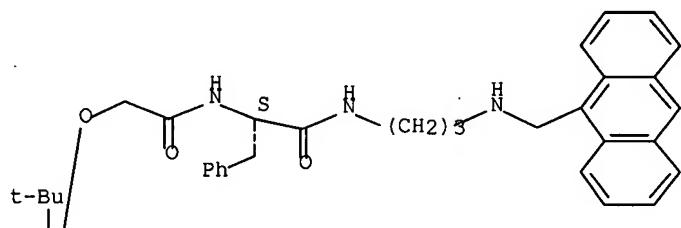


RN 927422-16-0 HCPLUS
 CN Benzenepropanamide, α,α' -[[(5,11,17,23-tetrakis(1,1-

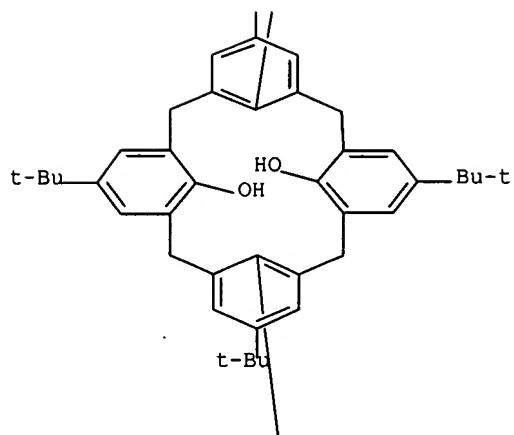
dimethylethyl)-26,28-dihydroxypentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-25,27-diyl]bis[oxy(1-oxo-2,1-ethanediyl)imino]bis[N-[3-[(9-anthracenylmethyl)amino]propyl]-, (αS,α'S)- (CA INDEX NAME)

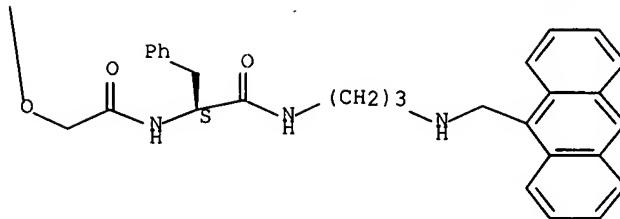
Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A





CC 80-2 (Organic Analytical Chemistry)
IT 927422-15-9P 927422-16-OP

RL: ARU (Analytical role, unclassified); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); ANST (Analytical study); PREP (Preparation); USES (Uses) (sensitive fluorescent sensors for malate enantiomer based on calix[4]arene bearing anthracene)

REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L47 ANSWER 2 OF 6 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:547390 HCAPLUS Full-text

ACCESSION NUMBER: 2000.3175
DOCUMENT NUMBER: 146:90665

DOCUMENT NUMBER: 1,0,90005
TITLE: Synthesis of triphenylene discotic liquid
crystals substituted with ester or amide
functional groups and the effect of hydrogen
bonding on mesogenic behaviors

AUTHOR(S): Zhao, Ke-Qing; Gao, Cai-Yan; Hu, Ping; Wang, Bi-Qin; Li, Quan

CORPORATE SOURCE: Bi-Qin, Li, Quan
College of Chemistry and Material Science,
Sichuan Normal University, Chengdu, 610066,
Peop. Rep. China

SOURCE: Huaxue Xuebao (2006), 64(10), 1051-1062
CODEN: HHHPA4; ISSN: 0567-7351

PUBLISHER: Huaxue Xuebao Bianjibu

PUBLISHER: huaxue
DOCUMENT TYPE: Journal

DOCUMENT TYPE: Journal
LANGUAGE: Chinese

LANGUAGE: Chinese
 AB Three series with total number of twenty-four new compds. which are sym. and asym. triphenylene discotic liquid crystals with two different kinds of peripheral chains, C18H6(OR)3(OCH₂COOEt)3, C18H6(OR)3(OCH₂COOBu)3 and C18H6(OR)3(OCH₂CONHBu)3, (R = C5H₁₁, C₆H₁₃, C₇H₁₅, C₈H₁₇) were synthesized. The purification was carried out with column chromatog. and structure characterization of these compds. was carried out with ¹H NMR, IR and elemental anal. The thermal gravimetry anal. results showed that all these compds. have good thermal stability up to 300°. Their thermotropic liquid crystal properties were studied with polarizing optical microscopy and DSC. For compds. C18H6(OR)3(OCH₂COOEt)3, the asym. compds. have lower melting and higher clearing points than that of their corresponding sym. compds., thus asym. compds. have wider mesophase temperature ranges. For the triphenylene derivs. containing amide group with structure of C18H6(OR)3(OCH₂CONHBu)3, the sym. compds. exhibit higher clearing points and more ordered hexagonal columnar mesophase than their corresponding asym. ones. For comparison of sym. and asym. compds. C18H6(OR)3(OCH₂CONHBu)3 and C18H6(OR)3(OCH₂COOBu)3, the formers have not only higher melting and clearing points but also richer columnar phases than the latter ones due to intermol. H bonding.

IT 917394-85-5P 917394-86-6P 917394-87-7P

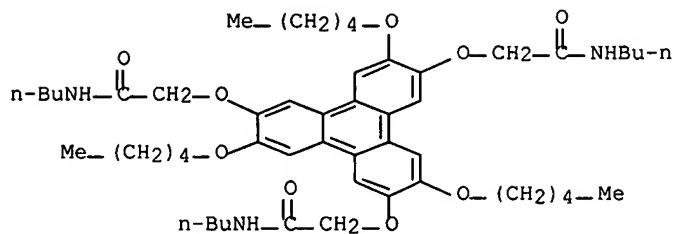
917394-88-8P 917394-89-9P 917394-90-2P

917394-91-3P 917394-92-4P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

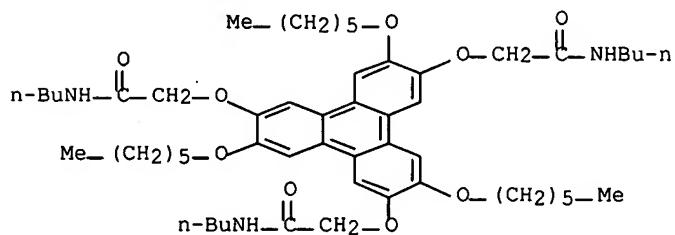
(preparation and liquid crystal properties of)
RN 917394-85-5 HCAPLUS
CN Acetamide, 2,2'-[1,3,7,11-tris(pentyloxy)-2,6,10-

triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



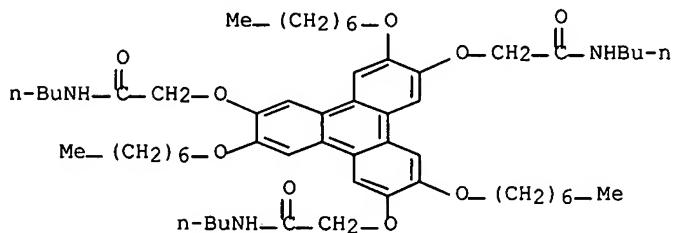
RN 917394-86-6 HCPLUS

CN Acetamide, 2,2',2'''-[[3,7,11-tris(hexyloxy)-2,6,10-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



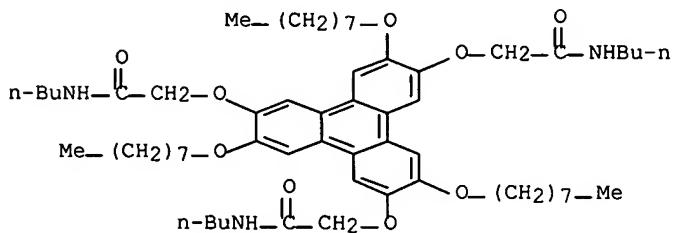
RN 917394-87-7 HCPLUS

CN Acetamide, 2,2',2'''-[[3,7,11-tris(heptyloxy)-2,6,10-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



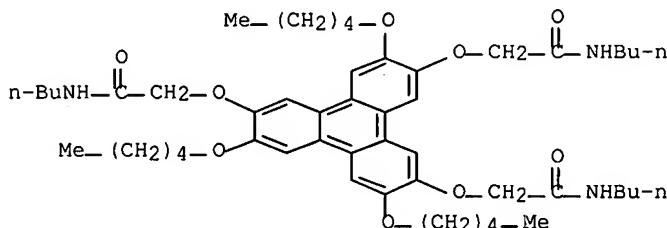
RN 917394-88-8 HCPLUS

CN Acetamide, 2,2',2'''-[[3,7,11-tris(octyloxy)-2,6,10-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



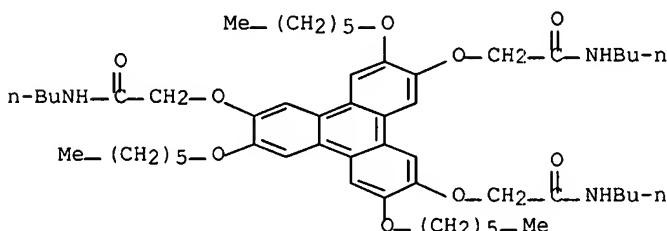
RN 917394-89-9 HCAPLUS

CN Acetamide, 2,2',2'''-[[3,7,10-tris(pentyloxy)-2,6,11-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



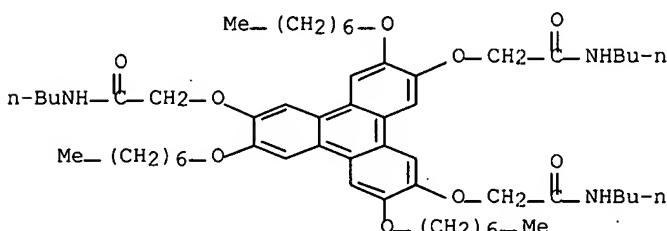
RN 917394-90-2 HCAPLUS

CN Acetamide, 2,2',2'''-[[3,7,10-tris(hexyloxy)-2,6,11-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



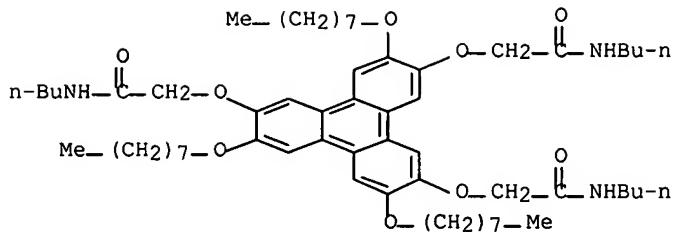
RN 917394-91-3 HCAPLUS

CN Acetamide, 2,2',2'''-[[3,7,10-tris(heptyloxy)-2,6,11-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



RN 917394-92-4 HCAPLUS

CN Acetamide, 2,2',2'''-[[3,7,10-tris(octyloxy)-2,6,11-triphenylenetriyl]tris(oxy)]tris[N-butyl- (CA INDEX NAME)



CC 75-11 (Crystallography and Liquid Crystals)
 Section cross-reference(s): 22, 25

IT 917394-77-5P 917394-78-6P 917394-79-7P 917394-80-0P
 917394-81-1P 917394-82-2P 917394-83-3P 917394-84-4P
 917394-85-5P 917394-86-6P 917394-87-7P
 917394-88-8P 917394-89-9P 917394-90-2P
 917394-91-3P 917394-92-4P 917394-93-5P
 917394-94-6P 917394-95-7P 917394-96-8P 917394-97-9P
 917394-98-0P 917394-99-1P 917395-00-7P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(preparation and liquid crystal properties of)

L47 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:565189 HCAPLUS Full-text

DOCUMENT NUMBER: 141:106275

TITLE: Preparation of fused aromatic compounds having charge transport properties

INVENTOR(S): Takeuchi, Masayuki; Ikeda, Masato; Shinkai, Seiji

PATENT ASSIGNEE(S): Kyushu Tlo Company, Limited, Japan

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058684	A1	20040715	WO 2003-JP15826	2003 1211
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003289315	A1	20040722	AU 2003-289315	2003 1211
US 2006111587	A1	20060525	US 2005-538484	2005 0608

PRIORITY APPLN. INFO.:

JP 2002-360369

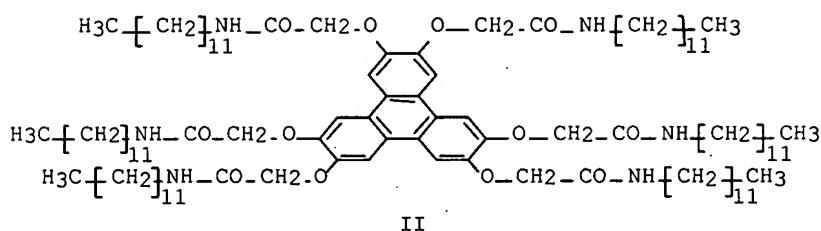
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2002
1212

WO 2003-JP15826

W
2003
1211OTHER SOURCE (S) :
GI

MARPAT 141:106275

 $A[X-Y]_n$ I

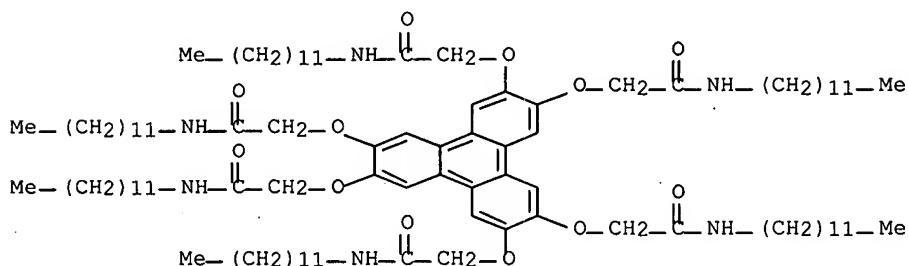
AB Title compds. I [A = fused aromatic hydrocarbon, e.g., triphenylene, etc.; X = hydrogen bonding moiety, e.g., amide etc.; Y = chain group, e.g., alkyl, etc.; n = 2-10] were prepared. In charge transport measurement, μ (hole mobility) of compound II was 0.021 cm²V⁻¹s⁻¹. Of note, compds. I are useful as charge transport materials.

IT 614733-37-8P 721396-37-8P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation of fused aromatic compds. having charge transport properties)

RN 614733-37-8 HCPLUS

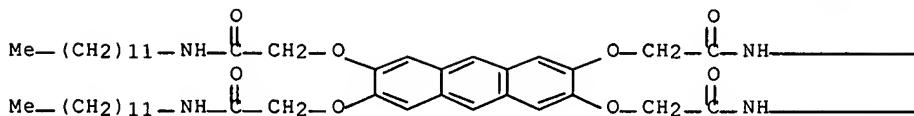
CN Acetamide, 2,2',2'',2''',2'''',2''''-[2,3,6,7,10,11-triphenylenehexylhexakis(oxy)]hexakis[N-dodecyl- (9CI) (CA INDEX NAME)



RN 721396-37-8 HCPLUS

CN Acetamide, 2,2',2'',2''',2''''-[2,3,6,7-antracenetetrayltetrakis(oxy)]tetraakis[N-dodecyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— (CH₂)₁₁—Me— (CH₂)₁₁—Me

IC ICM C07C235-20
ICS C09K011-06

CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

Section cross-reference(s): 74, 76

IT 614733-37-8P 721396-35-6P 721396-36-7P
721396-37-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation of fused aromatic compds. having charge transport properties)

L47 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:415872 HCAPLUS Full-text

DOCUMENT NUMBER: 139:329698

TITLE: Unusual emission properties of a triphenylene-based organogel system

AUTHOR(S): Ikeda, Masato; Takeuchi, Masayuki; Shinkai, Seiji

CORPORATE SOURCE: Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University, Fukuoka, 812-8581, Japan

SOURCE: Chemical Communications (Cambridge, United Kingdom) (2003), (12), 1354-1355
CODEN: CHCOFS; ISSN: 1359-7345

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The title compound forms organogels in appropriate organic solvents and the resultant gel phase exhibits unusual emission properties arising from the excimer formation.

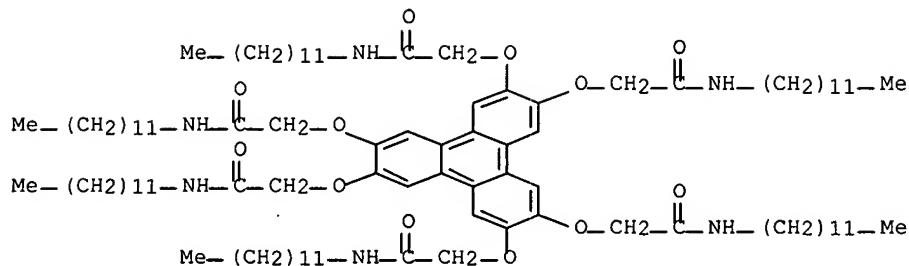
IT 614733-37-8P 614733-38-9P

RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)

(unusual emission properties of a triphenylene-based organogel system)

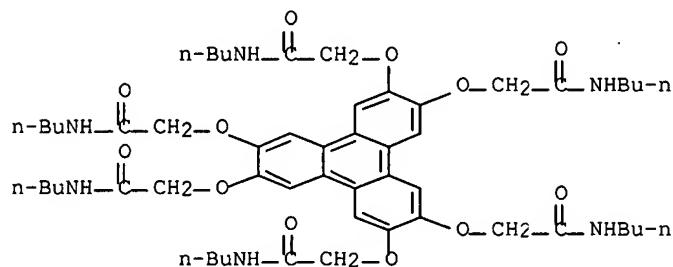
RN 614733-37-8 HCAPLUS

CN Acetamide, 2,2',2'',2''',2'''',2''''-[2,3,6,7,10,11-triphenylenehexaylhexakis(oxy)hexakis[N-dodecyl- (9CI) NAME] (CA INDEX NAME)



RN 614733-38-9 HCPLUS

CN Acetamide, 2,2',2'',2''',2'''',2''''-[2,3,6,7,10,11-triphenylenehexylhexakis(oxy)]hexakis[N-butyl- (9CI) (CA INDEX NAME)]



CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 22

IT 614733-37-8P 614733-38-9P

RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)

(unusual emission properties of a triphenylene-based organogel system)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L47 ANSWER 5 OF 6 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:384753 HCPLUS Full-text

DOCUMENT NUMBER: 133:98712

TITLE: Monolayer of a Na⁺-Selective Fluoroionophore on Glass: Connecting the Fields of Monolayers and Optical Detection of Metal Ions

AUTHOR(S): van der Veen, Niels J.; Flink, Simon; Deij, Menno A.; Egberink, Richard J. M.; van Veggel, Frank C. J. M.; Reinhoudt, David N.

CORPORATE SOURCE: Department of Supramolecular Chemistry and Technology, University of Twente, Enschede, 7500 AE, Neth.

SOURCE: Journal of the American Chemical Society (2000), 122(25), 6112-6113
CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In this contribution, the authors describe a monolayer of Na⁺-selective fluorescent receptor on glass, prepared by covalent coupling of the bis-isocyanate derivative of the receptor to a self-assembled monolayer (SAM) of 3-aminopropyltriethoxysilane

(APTES). This is the 1st example of a monolayer of a selective receptor for detection of metal ions by fluorescence. The optical response of the monolayer to Na^+ ions is compared to that another fluoroionophore in solution

IT 281660-00-2P 281660-01-3P

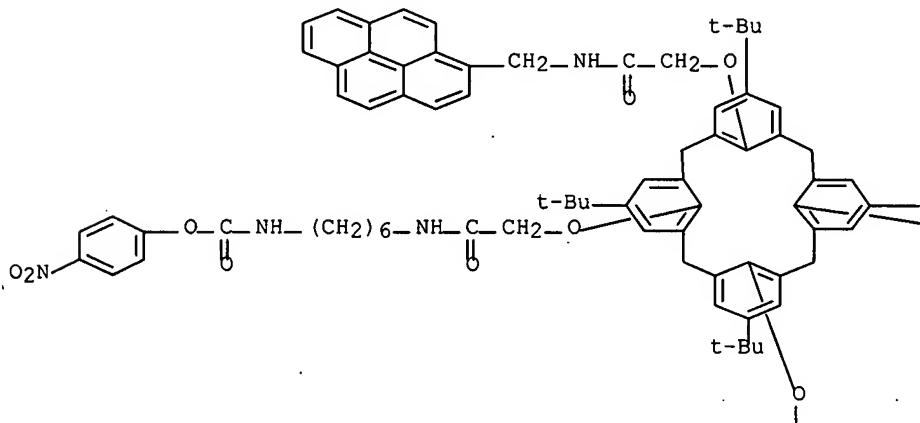
RL: ARG (Analytical reagent use); DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)

(monolayer of a Na^+ -selective fluoroionophore on glass:
connecting the fields of monolayers and optical detection of metal ions)

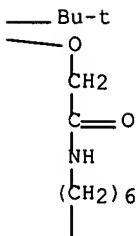
RN 281660-00-2 HCPLUS

CN Carbamic acid, [[5,11,17,23-tetrakis(1,1-dimethylethyl)-26,28-bis[2-oxo-2-[(1-pyrenylmethyl)amino]ethoxy]pentacyclo[19.3.1.13,7,19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-25,27-diyl]bis[oxy(1-oxo-2,1-ethanediyl)imino-6,1-hexanediyil]]bis-, bis(4-nitrophenyl) ester (9CI) (CA INDEX NAME)

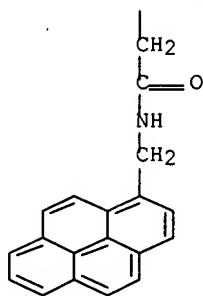
PAGE 1-A



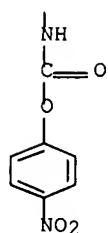
PAGE 1-B



PAGE 2-A

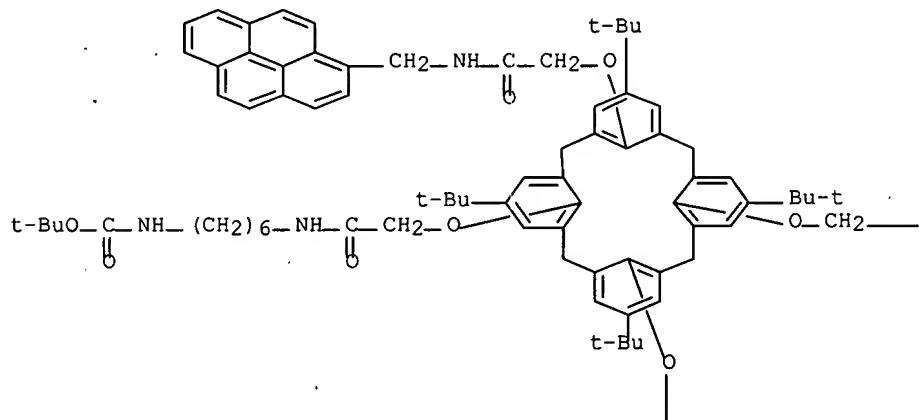


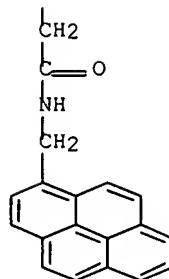
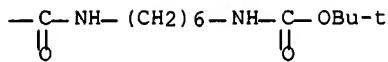
PAGE 2-B



RN 281660-01-3 HCPLUS
 CN Carbamic acid, [[5,11,17,23-tetrakis(1,1-dimethylethyl)-26,28-bis[2-oxo-2-[(1-pyrenylmethyl)amino]ethoxy]pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-25,27-diyl]bis[oxy(1-oxo-2,1-ethanediyl)imino-6,1-hexanediyl]bis-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A





CC 79-3 (Inorganic Analytical Chemistry)
 Section cross-reference(s): 25
 IT 281660-00-2P 281660-01-3P
 RL: ARG (Analytical reagent use); DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (monolayer of a Na⁺-selective fluoroionophore on glass:
 connecting the fields of monolayers and optical detection of metal ions)
 REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L47 ANSWER 6 OF 6 HCPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997:754865 HCPLUS Full-text
 DOCUMENT NUMBER: 128:88655
 TITLE: Purification of 2,3,6,7,10,11-hexamethoxytriphenylene and preparation of hexakis carbonylmethyl and hexakis cyanomethyl derivatives of 2,3,6,7,10,11-hexahydroxytriphenylene
 AUTHOR(S): Krebs, Frederik C.; Schioedt, Niels C.; Batsberg, Walther; Bechgaard, Klaus
 CORPORATE SOURCE: Macromolecular Chemistry Group, Risoe National Laboratory, Condensed Matter Physics Chemistry Department, Roskilde, DK-4000, Den.
 SOURCE: Synthesis (1997), (11), 1285-1290
 CODEN: SYNTBF; ISSN: 0039-7881
 PUBLISHER: Georg Thieme Verlag
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 128:88655

AB 2,3,6,7,10,11-Hexamethoxytriphenylene was subjected to an improved purification procedure and demethylated to give 2,3,6,7,10,11- hexahydroxytriphenylene as the relatively stable trihydrate. The latter was alkylated with reactive halogen reagents giving 2,3,6,7,10,11-hexakis(cyanomethyl)-, 2,3,6,7,10,11-hexakis(N,N-diethylcarbamoylmethoxy)- (I), and 2,3,6,7,10,11-hexakis(ethoxycarbonylmethoxy)triphenylene (II). Reduction of I gave 2,3,6,7,10,11-hexakis(diethylaminoethoxy)triphenylene, and reduction of II followed by acetylation gave 2,3,6,7,10,11- hexakis(acetoxyethoxy)triphenylene. Hydrolysis of II gave 2,3,6,7,10,11-hexakis(carboxymethoxy)triphenylene, which was converted to the corresponding active N-hydroxysuccinimide ester by the DCC method.. The latter is a versatile core mol. that could be coupled with tert-Bu glycinate, L-phenylalanine, and tert-Bu L-phenylalaninate.

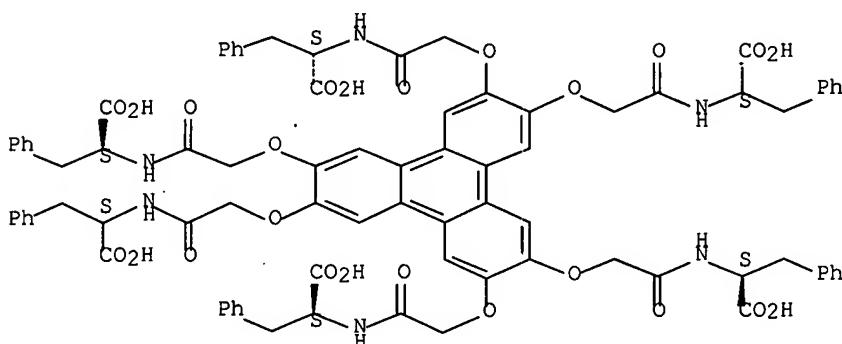
IT 200814-88-6P 200814-89-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of carbonylmethyl and cyanomethyl derivs. of triphenylenehexol)

RN 200814-88-6 HCPLUS

CN L-Phenylalanine, N,N',N'',N''',N'''',N''''-[2,3,6,7,10,11-triphenylenehexylhexakis[oxy(1-oxo-2,1-ethanediyl)]hexakis-(9CI) (CA INDEX NAME)

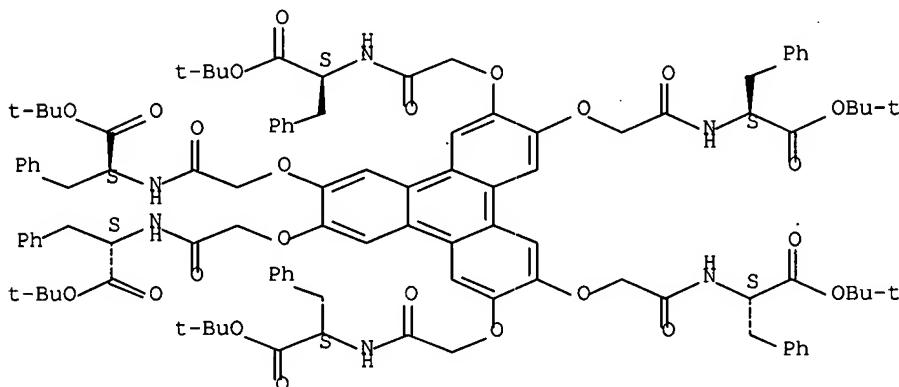
Absolute stereochemistry.



RN 200814-89-7 HCPLUS

CN L-Phenylalanine, N,N',N'',N''',N'''',N''''-[2,3,6,7,10,11-triphenylenehexylhexakis[oxy(1-oxo-2,1-ethanediyl)]hexakis-, hexakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



10/538484

CC 25-28 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
IT 200814-81-9P 200814-83-1P 200814-84-2P 200814-87-5P
200814-88-6P 200814-89-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of carbonylmethyl and cyanomethyl derivs. of triphenylenehexol)

FULL SEARCH HISTORY

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D ALL
SEL RN

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22118-09-8/BI OR 3178-75-4/BI OR 3674-07-5/BI OR
4877-80-9/BI OR 582-17-2/BI OR 614733-37-8/BI OR
70351-86-9/BI OR 721396-35-6/BI OR 721396-36-7/BI OR
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D SCAN

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D SCAN
D QUE STAT
D L3 1-2 STR RSD
D SCAN

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D QUE STAT L6

L9 FILE 'LREGISTRY' ENTERED AT 15:13:54 ON 29 MAY 2007
STR L4

L10 FILE 'REGISTRY' ENTERED AT 15:28:28 ON 29 MAY 2007
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STR L9

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D SCAN

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 D QUE STAT L17

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 E ANTHRACENE/CN

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 E 2508.17/RID
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L22 2 SEA ABB=ON PLU=ON TETRACENE/CN
 D SCAN
 E NAPHTHACENE/CN

L23 1 SEA ABB=ON PLU=ON NAPHTHACENE/CN
 D SCAN
 D RSD
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L24 1 SEA ABB=ON PLU=ON PENTACENE/CN
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 D 1-2 STR RSD
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 E IKEDA M/AU
 L50 QUE ABB=ON PLU=ON IKEDA M?/AU
 E SHINKAI S/AU
 L51 QUE ABB=ON PLU=ON SHINKAI S?/AU
 L52 QUE ABB=ON PLU=ON L49 AND L50 AND L51
 L53 QUE ABB=ON PLU=ON (L49 OR L50 OR L51)

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 D L1 PA

FILE 'ZCAPLUS' ENTERED AT 16:28:13 ON 29 MAY 2007
 E KYUSHU/CO
 E KYUSHU TLO/CO

L54 QUE ABB=ON PLU=ON (KYUSHU(W)TLO?) / PA, CS, SO, CO
L55 QUE ABB=ON PLU=ON L53 AND L54

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L58 QUE ABB=ON PLU=ON ELECTR?(2A) TRANSPORT? OR HOLE(2A) (M
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L67 32 SEA ABB=ON PLU=ON L65 AND L66
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